

## Claims

1. A method for manufacturing a layered paper or board web, in which method thick stock (M) delivered to a paper machine is diluted with tail water and the diluted stock  
5 (M<sub>1</sub>) is fractionated to produce two different stock fractions (A, B), of which the first stock fraction (A), containing on an average finer material than the second stock fraction (B), is conducted into the surface layer or layers of the paper or board web, and the second stock fraction (B), containing on an average coarser material than the first stock fraction (A), is conducted into the middle layer or layers of the paper or  
10 board web, **characterized** in that the coarse stock fraction (B) is, before being fed into a headbox (15; 17), diluted with water having a consistency that is substantially lower than the consistency of the tail water added into thick stock (M) before fractionating.
- 15 2. A method according to claim 1, **characterized** in that the coarse stock fraction (B) from fractionation is diluted with water, whose consistency is at the most 60 % of the consistency of the tail water used for diluting the stock before fractionating.
- 20 3. A method according to any of the preceding claims, **characterized** in that water from fiber recovery, suction flatboxes and/or press section and/or separately collected fabric conditioning water and/or cleaned tail water is/are used for diluting the coarse stock fraction (B) from fractionation.
- 25 4. A method according to any of the preceding claims, **characterized** in that tail water that has been diluted with a water type substantially cleaner than the tail water itself is used for diluting the coarse stock fraction (B) from fractionation.
5. A method according to any of the preceding claims, **characterized** in that the coarse stock fraction (B) from fractionation is conducted into the headbox (15; 17)

through a cleaning device (12) and that the stock fraction (B) in question is diluted before it is fed into said cleaning device (12).

6. A method according to any of the preceding claims, **characterized** in that  
5 fractionating is carried out by centrifugal cleaners (11).

7. A method according to any of the preceding claims, **characterized** in that fractionating is carried out by screens.

10 8. A method according to any of the preceding claims, **characterized** in that fractionating is carried out by in two or more stages.

9. A method according to any of the preceding claims, **characterized** in that the fine stock fraction (A) from fractionation is conducted into at least one layer (14<sub>A1</sub>, 14<sub>A2</sub>)  
15 of the multi-layer headbox (15) used for forming a surface layer of the paper or board web, and the coarse stock fraction (B) from fractionation is conducted into at least one other layer (14<sub>B</sub>) of the same multi-layer headbox (15) used for forming a middle layer of the paper or board web.

20 10. A method according to any one of claims 1 to 8, **characterized** in that the fine stock fraction (A) from fractionation is conducted into at least one headbox (16) used for forming a surface layer of the multi-layer web, and the coarse stock fraction (B) from fractionation is conducted into at least one other headbox (17) used for forming a middle layer of the multi-layer web.